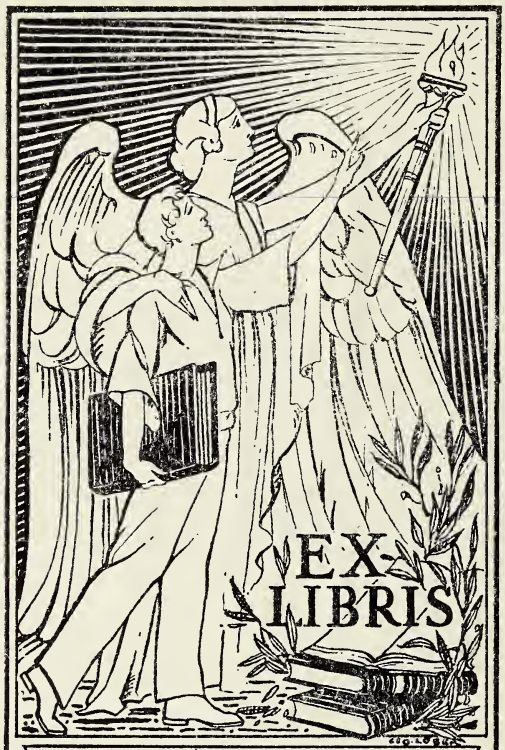
ECONOMIC VALUE OF SCOTOIC LABOR
OR LABOR IN THE DARK

William B. Wait



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In February, 1906, a special number of CHARITIES AND THE COMMONS was devoted to the question of the employment of people who are unemployed because of disability arising from infirmities of various kinds, and particularly to that worthy portion of the community who must labor in darkness because of the loss of sight.

The official reports and the other articles comprised in the symposium on the employment of the adult blind have been prepared with such evident purpose and great care that they not only merit consideration, but give assurance that their study will lead to some important and determinate conclusions. The consideration of the subject at this time therefore will be based upon views presented in the symposium articles.

The problem presented is that of determining the economic efficiency of several thousands of our adult population. They are scattered throughout the state, distributed all along the line of life with numbers increasing in the higher decades, rich and poor, educated and illiterate, exhibiting every condition of mental and bodily health. We will be greatly assisted in our study if we keep in mind that the question is the economic, commercial practicability of working in darkness and not the question of the desirability of employment for the adult blind.

Describing the consequences of blindness and the condition of the adult blind, Dr. F. Park Lewis writes as follows:

> He has always depended upon his eyes to guide his every movement; and when he finds that sight is gone, there comes a sense of utter helplessness. His usual movements are imperfectly co-ordinated and his attitude and gait take on an exaggerated awkwardness. In the manual laborer, the brain action is not usually rapid. The routine muscular movements under the guidance of the eyes have become largely automatic. When one element of the associated functions is taken away the movement of all becomes hesitant and uncertain. Then rapidly follows loss of self-confidence. The man can no longer do the simple things that he had all of his life done, although sight is not required to do them. He cannot walk freely and rapidly on an unobstructed surface, although he is assured that he may do so without danger. He must be readjusted to the altered position in the world in which he finds himself. It is the critical period in his new life. He must be taught to believe in himself. He must find himself. Page 607.
>
> The blind of the state are in general very poor. At least sixty-five per cent of them are too old to acquire and to follow an industrial occupation, while another and unknown proportion of them are physically or mentally unsound.[1]

It is not necessary to amplify upon statements made by painstaking inquirers into the condition of the adult blind, for they sufficiently emphasize the fact that an adult person who loses his

[1]From report of New York State Commission on Adult Blind, CHARITIES AND THE COMMONS, Vol. XV., Page 621.

sight is by that deprivation at once disabled, rendered infirm, and put out of relation with all the ordinary operations of economic activity.

Hand Work for the Adult Blind.

There can be no doubt but that the work of the hands, in one form or another, is the basis of the economic efficiency of the great mass of the population, and the articles on the adult blind show that the writers with great unanimity regard hand work as being the means of restoring the adult blind to economic efficiency and self-dependence,

This will be made clear by the following extracts:

> It is a measure, therefore, of financial wisdom on the part of the state to give him the little help now, in order that it may not be obliged to give him the greater help through his whole life long. Page 608.
>
> With all the deductions that have been previously made there are still very many adult blind men and women who are capable of being taught and of following some industrial training for whom suitable provisions should be made. Page 622.
>
> It soon became apparent that, in order to insure success, only articles made by hand and in the manufacture of which no machinery could take the place of hand work could be considered in our new venture. Page 629.

So far then it is clear that the symposium articles intend to establish two points: First, that a large majority of the adult blind are not in adjustment with economic conditions, and second, that a restoration of practical relations will be secured by the establishment of trade schools and of factories.

If it be proposed to establish one or more trade schools and factories, it is important to know how many persons are to be instructed and employed. This is a matter of large importance, for if the state or a city is to maintain this work, it would be unjust to provide such meager facilities that only part of the eligible number could be instructed or employed.

Moreover, the proper aim and essential result must be a finished product. Here, as elsewhere, division of labor must be practised in each branch so that any finished product will represent the work of two or more persons. If, therefore, such a school is established upon an insufficient, petty basis, its benefits cannot be impartially extended nor can its work be fully efficient. This question of numbers, however, is of local interest, and will be considered only with reference to the state of New York. Our data will be furnished by the United States Census of 1900, by the report of the New York State Commission on the Adult Blind, and other reliable sources.

Number of Eligible Apprentices.

Having in mind that the object in view is educational, the membership of the trade school will be called apprentices. To ascertain the number of eligible apprentices in the whole blind population, we will proceed by exclusion. As adults only are being considered, all under the age of twenty-one, numbering 584, must be deducted. Next comes that considerable group of efficient people of whom O. H. Burritt speaks as being, *"even under present conditions, usefully employed"*, the number of whom he estimates to be 750.

The largest and if possible the most pathetic group of all comprises those who are too old, or who by reason of mental or bodily unsoundness, cannot learn and follow a trade. The Commission states that

> **At least sixty-five per cent of them are too old to acquire and to follow an industrial occupation, while another and unknown proportion of them are physically or mentally unsound.**

This sixty-five per cent numbers 3,905, and the unenumerated number of those mentally or physically unsound may be safely taken by estimation as 300.

Stated in tabular form, the result is as follows:

Total blind population, 1900.....		6,008
Less number of school age, 9.75%...	584	
Less number usefully employed.....	750	1,334
Number remaining.....		4,674
Less number too old, 65%.....3,905		
Less number physically and mentally unsound	300	4,205
The number available for trade schools and factories		469

At this point, it will be interesting to inquire as to the probable domicile of these available apprentices and workers. From information recently furnished me

by every almshouse in the state, by five "homes" and one "working home," it appears that, at the beginning of 1906, the number of blind resident in these places was as follows:

Connected with "working homes"	28.
Resident in "homes"	125.
Resident in almshouses	348.
	501.

The information at hand indicates that of this number probably 453 are in the group classed as "too old," and physically or mentally unable to acquire and to follow a trade, so that this group of 501 persons will contribute only fifty-three apprentices and workmen. From this it appears that of the 469 apprentices and workmen, 413 are living with friends in their several communities.

These figures are based on the census of 1900, since which time the population has risen from 7,268,894 to 8,066,672. At the same rate of increase for the adult blind, the number now available as trade school apprentices and as factory workmen is about 525. O. H. Burritt, however, of the New York State Commission, estimates the number to be 750.

Whatever the number of adult persons in the group may be, it has been assumed that their economic efficiency as hand workers, of which they have been deprived by loss of sight, can be restored to them by a course of training in an industrial or trade school.

The Massachusetts State Commission on the Adult Blind makes this as its fourth recommendation:

> That the board shall be empowered to establish and manage a system of industrial schools and workshops for the purpose of affording suitable blind persons instruction and work in the lines of industry most adapted to their needs.

The New York State Commission says:

> With all the deductions that have been previously made there are still very many adult blind men and women who are capable of being taught and of following some industrial training for whom suitable provisions should be made.

Assuming that a trade school is to be established, courses of training will be determined by the trades to be taught. As to the suitability of certain trades, the symposium writers suggest willow work, hand loom, mats and rugs, mattress, net and broom making. Other branches such as knitting, crocheting, sewing by hand and machine, cooking, cane-seating, which unite mental discipline with manual skill, and are specially useful in a course of manual training for the young, cannot be regarded as trades. No consideration need be here given to the courses of training and it is granted that they will be adequate in every particular.

Employment After Leaving the Trade School.

The trade school presupposes and prepares for industrial employment of the adult blind, and having received the full benefits of training at a trade school with the avowed purpose of restoring its graduates to the class of efficient bread winners, they will as a logical sequence expect that they will be given employment either in an individual or in a collective capacity. Unless this result follows, the prime reason for the existence of the trade school fails.

The group in question comprises men and women, the majority being men. As women are more circumscribed in relation to the activities and possibilities of employment than men, only men will be here considered as being the workers. This will avoid unlike factors, while any conclusion reached will be as true for the women as for the men.

Among the graduates of the trade school will occasionally be one who has energy, tact, and address; a faculty for making and executing plans, aptness in buying and selling, in giving credits, in making collections; in short one who possesses that combination of natural and acquired powers that constitute a business man. This most desirable class of trade school graduates will be very small, but as their economic efficiency has an intellectual rather than a manual basis, they form a group apart from those under consideration.

It appears to be the opinion of the Massachusetts and the New York state commissions that owing to lack of initiative and of capital, and to other causes the trade school graduates will

not be able either to create or to secure stated employment by their own efforts, and hence it will be necessary to provide employment either through private or through public agencies. The commissions, however, are not in entire accord; for while they agree that these trade schools should be maintained by the state and be under state management, they differ as to the treatment of the employment question.

As we have already seen, the Massachusetts Commission recommends a system of *industrial schools and workshops,* established and managed by a state board. The New York State Commission says,

> * * * There are very many blind men and women who are capable of *being taught*, and of following some *industrial training* for whom provision should be made.

That the provision here suggested does not include a work-shop or factory is shown by the second recommendation of the commission which says,

> We recommend that provision be made for the industrial training of the blind over twenty-one years of age, and to that end, that in the city of Buffalo there be established tentatively, in a rented building, one industrial school, or "school-shop."

Referring to the obligations of the state and to the disposition of the "school shop" students upon graduation, Dr. Park Lewis, chairman of the New York State Commission in his symposium article says:

> Shop schools should be established in various centres of population. They should be maintained by the state, and should be *work* schools simply.
>
> The state then having rescued its unfortunate citizen, the duty of his rehabilitation remains with his fellows.

Whether, however, the employment be of private or of public origin, and whether the graduates be employed individually or collectively, in village or city, at one trade or another, the potential fact remains to be determined; namely, the real value of their labor as measured by usual business practice and results.

Economic Efficiency of Blind Workers.

According to common standards, the returns from the finished products of labor must pay interest on fixed capital, superintendence, shop cost, selling expense, taxes or rent, insurance, repairs, and all other current outlay, and a satisfactory return on the working capital invested. If such returns can be derived from this class of labor as surely as from the labor of men working under usual conditions then the economic efficiency of these sightless workers will on an average be that of other workers; if not, then their labor value will fall below the commercial standard, and employment will not be offered. The conditions of the situation are easily illustrated:

Suppose B and C to be experts at willow work, a trade always highly esteemed for blind people, because light is less essential in this than in other trades and also because little has been done in this line with labor saving machinery. Suppose that they be required to work in competition with each other, all the conditions being the same except that C shall be blindfolded. Although C is not blind, he is for the time working as blind people must work, that is without the aid of sight, the pilot sense that guides and directs every movement of the workman's hands. The result can be foretold without calculation, for it can be guessed. The work of C for a given time, when compared with that of B, will be found to be less in quantity, poorer in variety, not uniformly equal in quality or finish, and therefore less in market value. Willow work is the type of all handicrafts. C is the type of those who because of blindness must work in darkness and the results express the relative productive capacity of the two classes of workers. If the number of those engaged be larger, and if some other trade be substituted for willow work, the effect will only be a difference in the magnitude, but not in the character of the results.

It should be noted here that in this realistic hypothetical case, B and C are not in fact competitors and the term competition does not properly describe their relation, for C, as he well knows, is handicapped beyond the power and hope of successful effort. A yacht or a horse so handicapped would be disqualified, and would not be allowed to enter a contest.

Another element that helps to diminish industrial efficiency is the fact that the infirmity which renders a person unfit for competition also unfits him for co-operation, for it is clear that an attempt to co-operate between the members of a disabled class would tend to augment their difficulties, and equally clear that efficient workers would not unite with those who are disabled in any business conducted on a commercial basis. If this view be not correct, then blind people would be found engaged in work at trades, competing and co-operating with those who see, either on personal account or as the employes of others.

It is significant, however, that although the New York Commission furnishes much data secured by personal visitation of several hundred cases, its statistical tables contain no instance of this kind.

If confirmation of the conclusions deducible from this hypothetical case is needed, it is found in the evidence furnished in actual practice. There are several institutions in this country established for the instruction and employment of adult blind people in trades. The New York Commission submitted to each of them the question, "Is your institution self-supporting?" to which one replied, "Not yet"; one, "Nearly so"; and the rest, "No." It will be observed that none replied affirmatively. Some of these establishments combine a "home" or residence feature with the workshop, and upon this problem the New York Commission says:

> **Your commission find that all attempts to combine industry and charity in the same establishment and under the same management have proved in every instance to be at best financial failures, and in its judgment such must continue to be the case since by its combination a premium is put upon idleness by giving the most charity to the least industrious person.**

The implication seems to be that the financial loss is due to the employment of some workers described as the "least industrious." But if the most expert blind workman cannot compete with even the average of workmen who see, as is doubtless the case, financial success will not be achieved even if all the blind workers are of the best or most industrious kind. These workers will rarely be found to be equal in the quality and amount of work done, and hence there will always be some not necessarily less industrious, but less productive, than others.

Moreover, the combination of domicile and workshop is not demanded by social or moral interests to which indeed it is opposed. The only reason for it is financial, and grows out of the consideration that a given number of these workers can be supported *en masse* at less expense than if they were to be dispersed in the community; and with the cost of living reduced, the shop returns will more nearly equal the outlay and the cost of maintenance will be reduced.

That the blind themselves fully understand that inability to see is the cause of their industrial disablement cannot be doubted; and to those who have studied the problem long and seriously, blindness is the direct cause of their industrial insufficiency, the one irremovable and insurmountable obstacle which if all other obstacles be removed or surmounted, will still prevent their recognition as competitors or as co-workers in industrial vocations. This is a significant fact, repugnant to the desires and feelings of us all and so it is natural that one who is accustomed to view every social problem from a philanthropic viewpoint should feel that a satisfactory solution may be possible, through the correction of former or of present methods or by the adoption of new ones.

Under the caption "The Recent Movement" the leading article of the symposium says:

> **These investigations are showing * * * that from the standpoint of the community, the significant fact is not the lack of sight, which in an intellectual and æsthetic sense can be largely overcome by the methods of the schools, but their insulation as members of economic society. Therefore comes a demand that the scholastic institutions dealing with blind youths prepare them more concretely for after life.**

Industrial Training in Youth.

In other words, the community is not concerned so much with the fact that men are blind as with the fact that, being blind, they are not employed in concrete or industrial pursuits, and it is assumed that the reason why those who have attended schools for the blind do not work is that their education was not sufficiently concrete; that is, that blind boys and girls are not taught trades during their school period. Assuming for the moment that this proposition is true, and assuming that the education given is sufficiently concrete, we may point out the extent to which this recourse will restore the whole class of adult blind to concrete efficiency and equality.

In 1900, only 9.72 per cent of the whole blind population of this state was under twenty-one years of age. Reductions because of eye troubles, infancy, general ailments, and other causes will reduce the number, so that those who can attend a school for the blind will not exceed five per cent of all. Of this five per cent about two per cent are girls and three per cent boys. Any attempt to make artisans of these blind school girls would be futile. As for the boys, even if all learned a trade, which would not happen, they would not be at economic parity with normal workers, for they will be subject to the law which regulates competition, as illustrated in the hypothetical case previously stated. The theory that the scholastic institutions should prepare the young blind for after life by instructing them "more concretely" in mechanical trades is neither new nor true, its exploitation having been begun in this country in 1832 by the first schools, and its falsity having been repeatedly and conclusively shown, not only by financial loss but by educational and moral decline.

One of the latest instances is that given in a symposium article by J. Perrine Hamilton, who says:

> When the state of Michigan began * * * to provide for the education of its blind people * * * in the school for the blind first established * * * industrial trades were introduced.

Apparently, the Michigan people were unaware of the lessons experience had elsewhere taught, and instead of starting where others had stopped, they started as others had done a half century before, and assuming the theory of concrete or industrial training for the young blind tried to carry it into effect. Continuing, Mr. Hamilton says:

> It was early discovered * * * that among those who have been thus trained at the school for the blind, many wished the school to continue to employ them, *claiming that they were unable to start in business for themselves, or to secure employment in shops with sighted help.*

Here is a modern case in which the blind youths received the specific concrete training which the industrial theory assumes will surely prepare them for after life, and yet the much desired object was not attained.

In connection with the trade school for the young blind, the Michigan institution also tried the experiment of teaching trades to the adult blind. On this point, Mr. Hamilton says:

> Many persons who had lost their sight after becoming adults were very anxious to be taught some industrial occupation. * * * The Lansing School tried at first to meet this demand, but these endeavors * * * *so imperiled the usefulness of the school as a moral and intellectual educational institution for the youthful blind, and also resulted in such financial loss,* that these efforts to assist the adult blind were entirely discontinued.
>
> After years of agitation more or less intermittent the Michigan Employment Institution for the Blind was finally established in 1903.

It should be noted that while the references to the adult blind in Mr. Hamilton's paper are not primarily relevant to the question of "more concretely" training the young blind which is now being considered, the two classes have been so often merged, both in theory and practice that a statement concerning one class carries with it some reference to the other. In this case, however, the reference to the adult blind is instructive, for as will be later seen the history of the Michigan school in this matter is a repetition of the experience of the oldest schools in this country.

The New York Experiment.

The schools in Boston, Philadelphia, and New York were opened about 1832. The experience of any of these schools would be equally satisfactory as an early example of intensive, industrial, or concrete training of the young blind, but the efforts of the New York school only will be taken for illustration. The primary impelling purpose of this school was, as it still is, to give to young people of school age who have lost their sight, an education equal in kind and degree to that given to other young people who possess all their senses, subject only to those unavoidable limitations which the absence of sight imposes. The educational ends in view were clearly discerned, for they were identical with the universal objects of education, but the means, methods, and practice by which to attain the desired ends had in the main yet to be devised and perfected; in short, the art and the science, the pedagogy and psychology of the education of the blind had still to be worked out and established. In the beginning there were no available embossed books, no apparatus for tangible writing or for other school uses. Much that was suggested proved to be illusory and useless, and the best and most needed of these tangible utilities were so costly as to be unavailable.

Oral instruction, therefore, necessarily became the chief method of the early schools. By this method the pupils became unduly passive and silent, and their participation in class work was reduced to a minimum. Obviously, under these conditions, some mental and physical diversion was necessary. At the time under review, the kindergarten, the various forms of sloyd, and other methods of co-ordinate mental and manual training now followed, had not been evolved, and therefore there was no recourse except to the simplest branches of handicraft. Again, the fact that blindness is a disabling infirmity had not been recognized from an economic commercial point of view, and it was believed that the young blind could be raised and maintained at economic par and be made self-supporting through a course of industrial training.

This belief that competing power could be acquired, and that support and profit would be derived from handicraft pursuits, constituted a strong incentive to that persistence in effort that is essential to success in any enterprise, and which in no case could be more necessary than in this one.

Thus it will be seen that both by intelligent interest and by the inevitable trend of automatic operation, the early schools worked upon the lines of concrete instruction for a concrete end. The special efforts of the New York Institution for the Blind in New York city covered a period of thirty years and dealt generously, intelligently, and exhaustively with every phase of the problem.

How the Work Started.

The first period extended from 1832 to 1845. In 1832 and 1833, the making of willow and mattress work, weaving and braiding of manilla and coir, floor and hearth mats, rag and list carpets, were introduced. Skilled instructors were employed, one having been brought from Scotland in 1833, to give instruction in these branches. Braiding palm was introduced in 1836 and paste board box work in 1838. In 1844 seven regular lines of boxes, besides many specialties in fancy boxes, were manufactured, while the willow ware comprised fourteen lines; and this variety was later increased.

During this period it was demonstrated that owing to various causes, chief among which was the lack of sight, of capital, and of needed assistance, the graduates could not individually compete with seeing labor, and therefore were powerless. These conditions so impressed the managers of the institution that they felt impelled to extend their efforts into a sphere of activity beyond that contemplated in the original purpose, and accordingly the institution undertook to relieve the situation by giving employment to its graduates, who should also reside on the premises.

Employing the Graduates.

This phase continued from 1845 to 1849, during which time the fact that the adult graduates were employed attracted the attention and stimulated the ambition of a number of adult blind people, who had lost their sight too late to enter the institution and who asked to be admitted to the shop, first as apprentices and later as employes.

During the first period, it was hoped that the proceeds from the finished products of the pupils' work would pay the cost of this department. In this as in other cases, outlay for education does not make return in money values and cannot be measured by commercial standards. Hence there was no real basis for this hope which of course was not realized.

During the second period, however, the case was different. The well trained graduates were employed as journeymen at full time, the work of the pupil apprentices was utilized to better advantage than before, and success seemed at least more certain. Still it did not come and it was thought that the lack of success was largely due to the great disproportion between the number of apprentices and the number of journeymen which, owing to want of room, could not be increased. Moreover, the full benefits of division of labor could not be derived from so small a body of workers. These and other considerations coupled with the desire of the outside adult blind led to the third stage in the sincere and strenuous effort of this institution to prove, if possible, that the hand labor of those who have lost their sight can be made commercially productive.

This stage of the undertaking extended from 1848 to 1862. The purpose was to retain the plan already existing and expand it, so as to afford an opportunity for instruction and employment in trades to adult blind persons of good character, who were able and willing to learn and to work.

The Workshop Experiment.

A substantial brick building, 200 feet on 8th avenue by 90 feet on 33rd and 34th streets, was erected, affording a fine salesroom and ample space for work-rooms, the storage of large quantities of raw materials and finished goods and for all other purposes.

The trades and occupations which contributed to the wholesale and retail business comprised sixteen lines of plain and fancy willow work, eight lines of pasteboard boxes, woven and hand made mats and rugs in great variety of material, pattern and color, mattresses, upholstering, braiding palm leaf, netting, hammock work, brushes, brooms, and a great variety of knitted and crocheted fancy goods.

At the inception of the enterprise, there was, as usually is the case, a call for goods based on sentiment, personal interest and curiosity. This, however, was soon supplied and the business then became subject to the usual laws of trade and of supply and demand.

It was soon apparent that the local wholesale and retail markets did not absorb the goods that were produced, samples of fine quality were sent out, and every effort was made to find a wider market in other states. The residential privilege which was accorded to the graduates first employed, and which had been extended to the adult blind, proved to be so undesirable and burdensome that at the beginning of 1855, after nine years of trial, and about two years after similar action for like reasons had been taken by the Perkins School at South Boston, it was found necessary to abandon it, and to require the employes to provide their own domiciles.

After 1854, therefore, for a period of eight years, the enterprise assumed the character of an ordinary factory, with this difference, however; that while the ordinary factory might work on part time, with reduced help, or be shut down entirely when markets were overstocked, trade dull, or prices of raw material too high, the institution kept its blind employes at work, as otherwise they would lose the stipend upon which they were absolutely dependent.

Within the limits of this paper we cannot dwell in detail upon the promising experiments, the alluring expedients, the patient struggles, the unrealized expectations, and the financial losses which marked this effort from 1832 to 1862, when it was finally abandoned.

Why the Failure.

Suffice it to say that although the resolute and intelligent purpose of the managers of the institution, and the buoyant hopes and dogged efforts of its beneficiaries and employees, were strongly opposed to such a result; still the long-sustained effort proved that in the handicraft pursuits the value of the labor of sightless people is far below economic par, and that if all other infirmities be absent or overcome and all external obstacles be removed, still the lack of sight remains the one disabling infirmity which fully accounts for and explains this under value, and for which no healing has as yet been found in the industrial world.

Here it may be said in passing that the New York Institution for the Blind was not only the first and still is the only school for the blind in the world which measures its scholastic work by the same tests that are applied to the work in the public schools, but has also taken the lead in pioneer work along the lines of manual training. Besides the trades previously mentioned that were introduced, the sewing machine, knitting machine, chair caning, cooking and raffia work were first successfully taught at this school. Two young women, having just completed their school course, were chosen as demonstrators of the sewing and knitting machines at the Centennial Exhibition held in Philadelphia in 1876, and afterwards at state fairs and in the company salesrooms in New York.

The knitting machine, although difficult to learn because of the dropping of stitches (which however our girls were taught to detect by the ear), seemed very promising because of the completeness of the articles made upon it; but, notwithstanding this and the thorough mastery of the machine that was acquired, its use on a commercial basis was not practicable. This is an illustration of the conditions set forth in the hypothetical case.

It may be pointed out that the power to detect by ear, in the midst of the whirring of several machines, the omission of a needle to take the thread, is doubtless the most remarkable example of the high discriminatiing power of the sense of hearing that has ever been attained, and well illustrates the nature of many of the problems of hearing and touch presented in the education of the blind, the discovery and solution of which would be impossible except at a special school. The knitting machine, however, proved to be of little value in manual training, while the dwarfing effects of its stated use upon a scotoic operator are well illustrated in a case related by Prof. Griggs, referred to later.

From what has already been said, it is obvious that the situation is prolific of stubborn facts and refractory conditions and on this point the symposium contributors are in accord. The general view is expressed in the following citations:

The Massachusetts Commission says:

> The problem of devising wise and effective measures for providing the adult blind with *adequate* industrial training to the end that they may engage in healthful and remunerative forms of industry *is an intricate and difficult one.*

J. P. Hamilton, superintendent of the Michigan Employment Institution for the Blind, says:

> The problem of how best to care for and help the adult blind has not been solved. The work is new and necessarily in more or less of an experimental stage.

It has been shown that at least sixty-five per cent. of all the blind are too old to learn and to follow a trade, that about five per cent. are mentally or physically unsound, that ten per cent. are minors, that ten per cent. are self-supporting or in good circumstances, leaving not over ten per cent. for industrial consideration; that about three-fifths of the last number are males and two-fifths females, some single, others married, and residing in their own homes, in incorporated homes and in almshouses; that upwards of ninety per cent. of all received their education and acquired their trades and occupations while still retaining their sight; that beginning in 1832, persistent, intelligent, generous, and costly efforts have been made to impart self-support and remunerative ability to both the young and the adult blind by *industrial*

instruction in handicrafts; that the problem is an intricate and difficult one, that none of these industrial enterprises, past or present, have been or are self-maintaining; that the problem remains unsolved; and that from an economic, commercial point of view accumulated experience indicates that it is not commercially susceptible of solution. Keeping these things in mind, the statements, suggestions, and recommendations presented in the symposium articles will repay careful consideration.

Diverse Ways and Means.

Doubtless the most significant statement relevant to the subject, to be found in the fourteen articles of the symposium, is that of Edward E. Allen, for many years past the principal of the institution at Overbrook, Pa., and formerly a member of the faculty of the schools at Boston and at Upper Norwood, England. Mr. Allen has served as a leading member of the advisory board of the New York Association for Promoting the Interests of the Blind recently formed in New York and for some years past has supervised a census of the adult blind of Pennsylvania. Mr. Allen says:

> There is no single solution of this problem. * * * That their case calls for study and alleviation there is no doubt. * * * A manifest duty is before us, but what to do and how to do it is not yet plain.

When one possessing such rich opportunities for observation, experience and reflection as Mr. Allen has enjoyed becomes conscious of an existing obligation, for the performance of which neither means nor ways have yet been made clear, men of less experience should not be expected to offer a solution; and true educators and philanthropists will approach the question with deliberation and caution, unmoved alike by the appeals of sentimentality and the rose-tinted prophecies of the promoter in philanthropy.

The two state commissions and the other writers favor industrial instruction and employment, but there is wide diversity both of opinion and practice as to the desirability of combining the trade school, the factory, and the domicile.

Those connected with "working homes" favor an organization embracing all of these features. Those connected only with "workshops" disapprove the "home feature," while others advocate an entire separation of trade school, factory and domicile, except in the case of trade schools at which the apprentices may be provided with support.

The Massachusetts Commission, after pointing out that the more general establishment of bureaus of registry for the adult blind, whether graduates of the schools or not, is one of the most pressing needs, says:

> Next in importance, perhaps, is the need of industrial or shop schools, and industrial homes.

From this it appears that the commission stands committed to "industrial homes," apparently as a logical sequence of "shop schools." In this the Massachusetts and New York state commissions differ widely and in a most important sense.

Dr. Park Lewis, president of the New York State Commission and president of the New York State School for the Blind, in his symposium article says:

> The state should then establish and maintain practical work schools in which the blind of both sexes shall have an opportunity of learning some one of the industries that experience has shown them capable of successfully following; these should not be allowed to become homes, and only those should be admitted to their benefits who are mentally and physically capable of profiting by a limited course of instruction.

This does not mean that a state trade school will not provide support and home for its apprentices, but it may and probably does mean that support and home should be provided separately from the trade school premises in neighborhood families, and that support and home should not be furnished after the trade school course has been finished.

The New York State Commission says:

> Your commission find that all attempts to combine industry and charity in the same establishment and under the same management have proved in every instance to be at best, financial failures, and in its judgment, such must continue to be the case, since by this combination a premium is put upon idleness by giving the most charity to the least industrious person.

The New York State Commission of 1903 plainly stands opposed to the union of factory, as a business operation, with the home, as a charity feature.

Here are two divergent views as to the mode and extent of state action. In so far as the industrial phase is concerned, the New York Commission recommends state action to give instruction at home, pecuniary aid in starting an industry at home, and to establish "work schools," and it does not recommend a state workshop or a state working home.

The Massachusetts Commission advocates industrial instruction and aid at home, and the establishment of state industrial schools and working homes.

The theory of the New York Commission seems to have been that if the adult blind are furnished with trade instruction in some cases, and trade instruction with some capital in others, supplemented with facilities for getting material and selling goods, they will then be able to maintain themselves against the rivalries of the labor market, and there will be no need for state workshops or for working homes. The theory of the Massachusetts Commission seems to have been that notwithstanding the work schools and the home aid, the labor of the blind will still not be at parity with the labor of those who see, and hence that state workshops and industrial homes will be needed. If the labor of the blind is adequately remunerative, why should this question of a home come up at all in connection with the subject of employment?

The fact that it has been found necessary to provide a home as well as employment is in itself evidence that the labor of the blind will not bring an "independent self-support." But whether the object be to provide trade schools only, or to provide a support ameliorated by trade schools and employment, the trade school members and the shop apprentices and workers should reside with the neighborhood families. Economy in the cost of support is the chief extenuation for the congregate "working home." When, however, one has lost his eyes, he all the more needs the use of the eyes of others, and this can be most freely secured through living in the usual relations with those who see.

While it is true that private philanthropy may find the congregate home to be the best and perhaps the only mode of practical relief, especially in cities, this practice on the part of the state would be from a pecuniary point of view unnecessary, and from a social aspect it would be most undesirable and unwise.

Scope of State Action.

The divergent views of the two state commissions in regard to the scope of state action presents a financial phase of more vital importance than that presented in the "home feature."

This relates to the source from which are to be derived, first, capital for purchase of land, buildings, and equipment, and for starting industries at home; second, the working capital for operating workshops and home industries; third, the regular income to make good the impairment of working capital arising from yearly loss in operation.

In effect, the policy suggested by the Massachusetts Commission is that the state shall assume the responsibility for all the adult blind who need its oversight and care, and provide the means, methods and instrumentalities necessary for their instruction and well-being.

As a matter of public policy the provision made would be permanent. Blind people both in cities and in sparsely settled districts would receive suitable and adequate consideration, not as dependents upon charity, but as a disabled and infirm fraction of the people that must have care for the honor and welfare of the whole body.

The plan of the New York State Commission would have the state provide home instruction, start the blind in new industries, furnish raw materials at cost, provide an "exchange" and maintain "work schools." These

should be maintained by the state and should be work schools only. * * * The state then having rescued its unfortunate citizen, the duty of his rehabilitation remains with his fellows.

Like the recommendation of the Massachusetts Commission, the fore-

going quotation from the symposium article of Dr. Lewis clearly indicates that the graduates of the work schools will not be able to "rehabilitate" themselves. The Massachusetts Commission would have the state continue its care over the trade school graduates. The New York Commission would let this duty devolve upon the community; or, in other words, upon the precarious support to be derived from individual contributions, administered and bestowed as charity.

The importance of fostering family ties and duties, neighborly acquaintanceship and interest, church membership and help cannot be too highly esteemed, but yet there seems to be something about the loss of sight in adult life which paralyzes action and renders suggestion futile, so that family and friends, the neighborhood and the church seem helpless, each looking to the other and all of them to some other source for aid.

Keeping these things and the lessons drawn from experience in mind, together with the facts in relation to location, and diversities as to race, sex, age, health, and domestic and denominational relations, it appears that the state alone can provide those large, compassionate, and wise measures that will effectually meet the physical, social, and intellectual needs of the adult blind, and relieve them from dependence upon the inadequate provision which genuine benevolence can at best make.

One other suggestion, found on page 639 of the symposium remains to be examined. It is as follows:

> In the ideal industrial school toward which we fondly look, there ought to be at least fifty machines or processes available for a blind person. All possibilities, from the use of a machine requiring a certain degree of skill to the simplest processes, should be thoroughly tested. It should be the aim of such an industrial institute to train the person in the most remunerative kind of work, the person's own ability being the gauge. I fully believe that at the end of twenty years every able-bodied blind person needing industrial opportunities, between the ages of sixteen and thirty, can find work of some kind side by side with seeing people, if efforts are persistently made in this direction.

Competition With Seeing Workers.

This proposition is chimerical, for its assumptions are unwarranted by experience, sound reasoning, and the customs that regulate employment. It is fallacious, for it assumes that machines can be operated and processes performed as well in darkness as in the light; that such work can be done as skillfully and profitably by hands unguided by sight as by hands directed by it; that machines and processes can be satisfactorily learned by blind people, disconnected from the other machines and processes with which they are associated in actual factory practice; and that employers will give time or space to the exploitation of a proposition which is manifestly impracticable.

The writer last quoted also says:

> It is an unfortunate fact that although the blind sadly need opportunity to work, the seeing need quite as much a clearer comprehension of the fact that a blind person, when given the opportunity, may become partially, if not entirely, self-supporting.

Earning a living and earning the going rate of wages are equivalent terms in the labor market, and the more clearly a business man sees that the blind can at best produce only a part of the product necessary to secure normal wages, the more certain will he be not to employ that kind of labor.

Commenting on this subject, the late Michael Anagnos says:

> The obstacles which hinder almost all persons bereft of the visual sense from engaging advantageously in handicrafts, or from seeking to obtain employment in factories, are insurmountable, and no expedients or devices of any sort can remove or lessen them.
>
> They can in no wise either take an active part in the industrial organization of the country, or engage individually with sufficient profit in any kind of handicraft, which promises to supply them with the means of independent existence.

Suppose, however, the proposition to be feasible, what is the result anticipated to be and what is the price to be paid for it?

First, only able-bodied graduates can hope for employment, and when we recall the small number that at best can be assigned to the industrial group, that nearly one-half of these are women and

that a man can nowhere work to greater disadvantage than in the dark upon factory machines and processes, it is clear that the number of able-bodied graduates who can qualify and find employment will be less than any assignable number.

Second, only those can find employment who are between sixteen and thirty years of age so that the maximum industrial life expectation will be fourteen years, and will be less according to the time spent at school in mental, moral and physical development.

The proposition suggests sixteen as the age at which blind boys and girls should go to work in factories, side by side with seeing people.

Need for Intellectual Training.

Of course, blind boys and girls could not do that without much shop drill prior to sixteen. While public policy provides compulsory education for those who see, and steadily raises the age limit at which minors may be employed in factories, this proposition would practically deprive blind boys and girls of all above the rudiments of education, and of the chief benefits and joys of school life. Indeed it would deprive those who lose their sight at the age of fourteen or fifteen of all subsequent intellectual education. Miss Lucy Wright, in her admirable symposium article, *Field Work Among the Blind* states as one of the conclusions from her study of the subject in Massachusetts that "The blind need more instead of less education than the seeing."

Beginning with the fifth year, the education of people having five senses requires about nine years in the primary course, four in high school, and four in college, thus making the students twenty-two years of age at graduation. When we reflect that education with only four senses, none of which can perform any vicarious service for the lost sense, is a much slower and vastly more difficult process than with five senses, the suggestion that blind boys and girls can receive the proper education of body, faculties, and character that American citizenship requires, and at the same time be prepared and expected to find work as machine and process operatives at the age of sixteen, exhibits a temerity that is amazing.

Prof. Griggs, in one of his lectures, relates the story of a young girl who had been obliged to seek work in a factory. At first, she indulged in a little talk now and then, and when the end of the week came she found that her pay was short because her work was short. This taught her that she must not talk. She could not help thinking however, and so she indulged occasionally in pleasant memories and anticipations. At the end of the next week, her pay was again short, and now she had learned that in order to perform the allotted task, she must work as automatically and as insensately as the machine which she operated but which in fact dominated the operator, mind and body.

Such an effort is obviously degenerating and brutalizing, and yet this is the lot deliberately proposed for the blind boys and girls of our state and country.

The idea, however, is not a product of American thought, and will never be realized, at least in this country.

What has already been said has made clear the proper functions of schools for the education of our young blind people. Under present and prospective conditions these special schools are indispensable and their resources should be wholly devoted to the physical, intellectual, and moral education of their pupils.

In so far as education from kindergarten to university has any direct and proper relation to vocation, the prime condition—life in darkness—unerringly points to callings that can be followed individually, by the use of hearing, touch and speech, and without the aid of sight or of muscular effort dependent upon it.

Industrial or trade instruction belongs to the post-graduate period of adult life, and it should not be allowed to trespass upon the legitimate work of the schools, which is mind-building and citizen-making. The New York Commission with great force says:

Some form of manual training for boys should take the place of the industrial training now conducted in schools for the young blind.

Education provides the only means by which our young blind people can ac-

quire self-respect, social recognition, and vocational independence: the only way by which to avoid in later years that gloomy darkness and ceaseless craving of the mind which neither benevolence nor beggary can illumine or satisfy.

As I have been actively engaged since the fall of 1859 in work to promote the education and welfare of the blind, those who have had the patience to peruse this paper may desire to know my views on the general subject.

A Plan for State Action.

In countries where the sovereignty is vested in one person, all others are subjects. The sovereign may bestow charity upon others but he cannot bestow charity upon himself. In this country the people are sovereign, and blindness deprives no person of his share in this attribute, and therefore any act done by the state in behalf of the blind is not charity but is an act of public policy to promote the welfare of the whole people, of which they are a constituent part.

This fundamental principle has been recognized by the people of this state, who have declared in their constitution that the legislature may make such provision for the education and support of the blind as to it may seem proper. As public policy and not as charity, the state may therefore command the wisdom and the resources of the people for this purpose.

A plan for state action should comprise the following features:

1. The fullest educational opportunities for the young blind, as part of the educational system of the state.
2. One salaried commissioner for the adult blind, to be appointed under the civil service, who shall devote his whole time to this work.
3. Instruction at home in manual training, including reading, writing, knitting, crocheting, hand and machine sewing, raffia and cord work, basketry, culinary and housework, outdoor work, with suggestions as to ways and means of useful occupation.
4. Work-schools, with support for apprentices, wholly separate from any workshop or factory.
5. Starting and establishing shop-school graduates in their own or in some other community when possible.
6. Work-shops or factories for those who cannot be so established.
7. Attendants at shop-schools, and shop employes invariably to reside with families in the community.
8. A system for supplying raw material at cost and for the sale of products.
9. Statutory provision for admission into denominational homes of respectable, well-disposed blind people of the same faith.
10. The support of respectable, well-disposed, friendless, or destitute people in good families whenever possible, but not exceeding three blind persons in any one family.
11. The support in residential homes of respectable, well-disposed adult blind people not otherwise provided for.
12. The care of disreputable, disorderly, or dissipated persons by the local authorities where such persons reside.
13. A bureau of registry and information.
14. Co-operation by relatives and the community.

But whether this work be done by the state or by charitable associations, no money should be appropriated or solicited upon the representation or expectation that scotoic labor will be commercially profitable or that scotoic workers can earn or ought to be expected to earn an independent self-support.

Recently, a horse was seen painfully struggling with a heavy load, making slow progress, while other teams with similar loads moved easily and freely along. The driver evidently felt that he was giving the horse an opportunity to work and earn his oats, which though quite willing, he had not the power to improve. Still the driver cried "get up," as his whip fell with a swish on the leathern coat of the panting creature. At length a man wearing a badge of the S. P. C. A. stepped from the sidewalk and stopped the horse, pointing out that it was infirm and disabled. The driver insisted that even if it was infirm that it could earn part of the cost of his oats. The officer (as the driver thought) was unreasonable, and insisted on sending the animal home to be cared for, and the driver to a magistrate to be reprimanded and fined for violating the law prohibiting cruelty to animals.

From a high, humanitarian point of view, those who insist that people who are infirm from loss of sight can and must earn an independent living at industrial pursuits are even less considerate than the merciless driver of this horse.